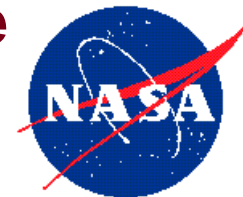


Small  
Business  
Innovation  
Research

# Tunable Laser for Ground-Based and Airborne Submillimeter Radiometers

*DeMaria Electro-Optics Systems, Inc.  
Bloomfield, CT*



## INNOVATION

Integrated, turn-key, Graphical-User-Interface-driven, THz (Far-Infrared) laser system. Fully-autonomous operation, rugged package

## ACCOMPLISHMENTS

- ◆ Turn-key, graphical-user-interface, THz laser system
- ◆ Absolute-frequency pump lock
- ◆ Integrated, compact, laser head
- ◆ Integrated gas handling system
- ◆ Permanently sealed-off pump laser
- ◆ Autonomous operation

## COMMERCIALIZATION

- ◆ Commercial contract in place with telecommunications company for similar system
- ◆ Phase III contract in place with JPL for this laser system
- ◆ Phase III contract initiated with JPL for non-folded version of the system
- ◆ Proposal submitted to Cavendish Laboratory in the UK for similar system



***Tunable Laser***

## GOVERNMENT SCIENCE/APPLICATIONS

- ◆ THz Local Oscillators
- ◆ THz Receiver Development
- ◆ Semiconductor Spectroscopy
- ◆ Chemical/Biological Agent Detection
- ◆ If successful in obtaining SOFIA instrument funding, modifications will be made in a Phase III to make the laser operational for a SOFIA flight.

Points of Contact:

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**Goddard Space Flight Center**

1995 Phase II, SS5-029; 3/27/00